

VIRTUAL CAMERA TRANSLATION

ABSTRACT

A multi-layer graph for dense stereo dynamic programming can improve synthesis of cyclopean virtual images by distinguishing between stereo disparities caused by occlusion and disparities caused by non-fronto-parallel surfaces. In addition, cyclopean virtual image processing may be combined with simulation of three-dimensional translation of a virtual camera to assist in aligning the user's gaze with the virtual camera. Such translation may include without limitation one or more of the following: horizontal (e.g., left and right) translation of the virtual camera, vertical translation (e.g., up and down) of the virtual camera, and axial translation (e.g., toward the subject and away from the subject) of the virtual camera.